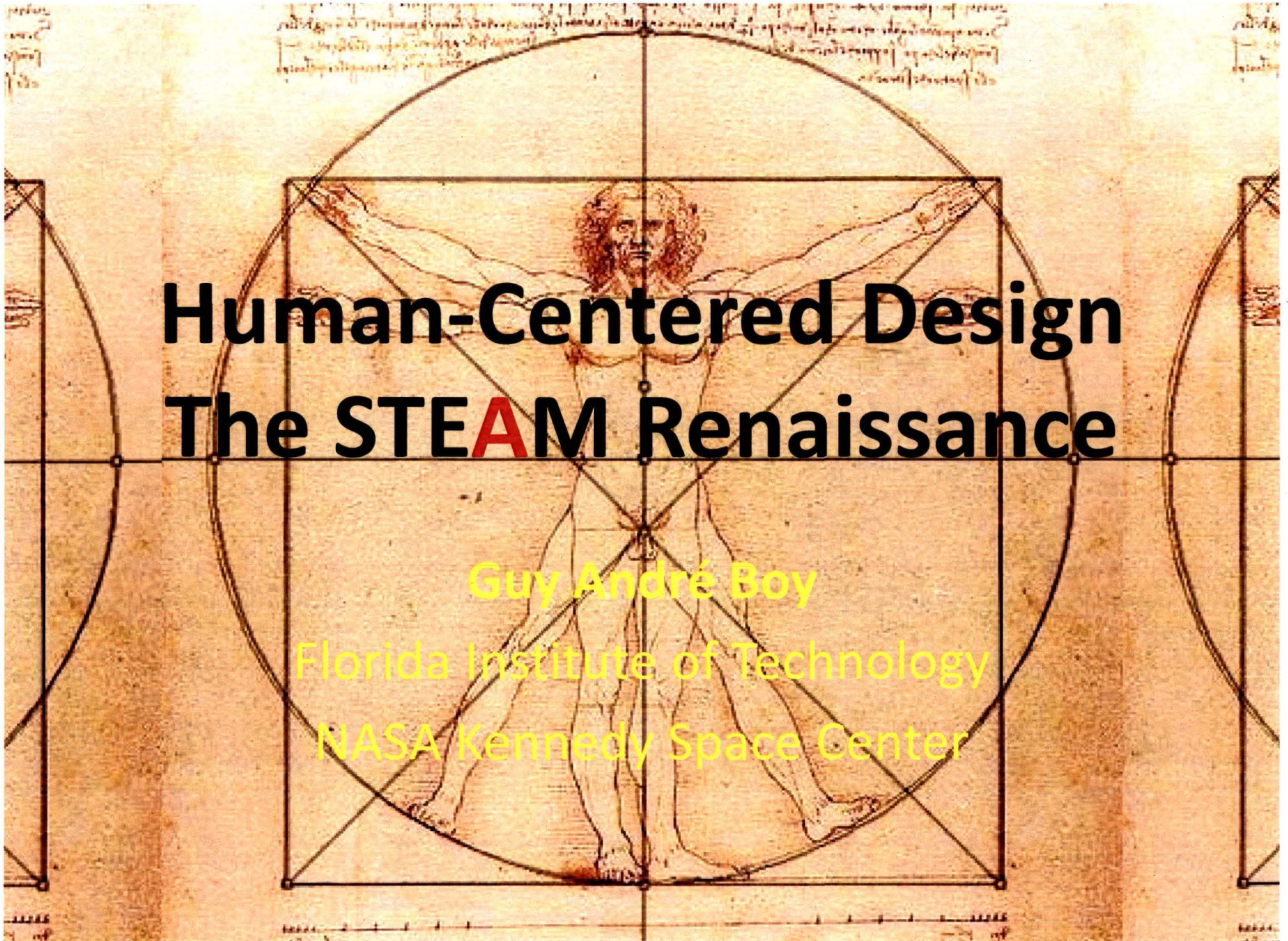


The background of the slide is a reproduction of Leonardo da Vinci's famous 'Vitruvian Man' drawing. It shows a male figure inscribed within a circle and a square, with arms and legs extended to the boundaries. The drawing is on aged, yellowish paper with some handwritten text visible at the top and bottom edges.

Human-Centered Design The STEAM Renaissance

Guy André Boy

Florida Institute of Technology

NASA Kennedy Space Center

“There is no difference (at the highest level) between the cold speculative intelligence and artist’s intuition. There is something artistic in scientific discovery and something scientific in what naive people call “artist’s genius intuitions.” What they have in common is the happiness of Abduction.”

(Umberto Eco, *Il superuomo di massa*, 1976)

Drawing a straight line...

Inside-Out approach



Builder's view

From Means to Purpose

Event-driven

Prediction

Short Term

Outside-In approach



Architect's view

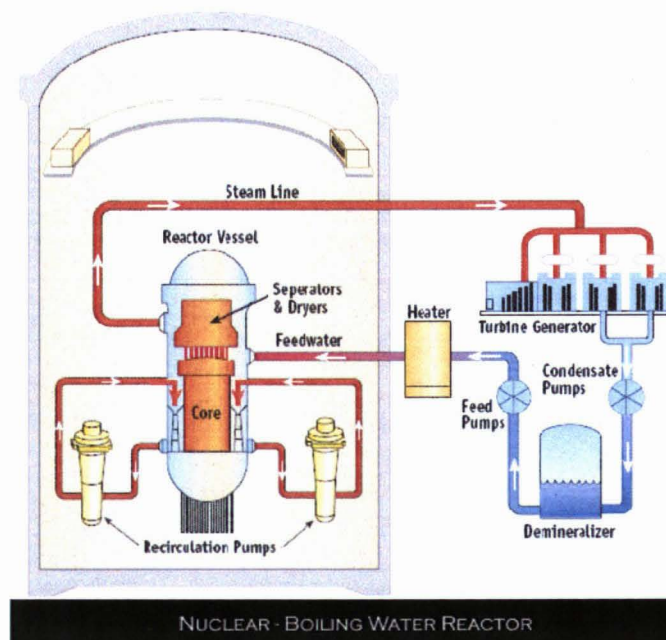
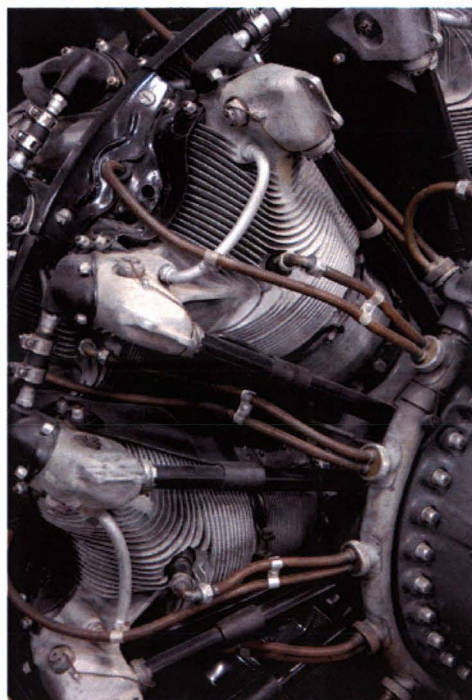
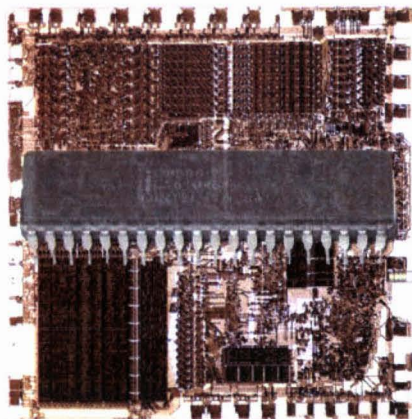
From Purpose to Means

Goal-driven

Possible Futures

Longer Term

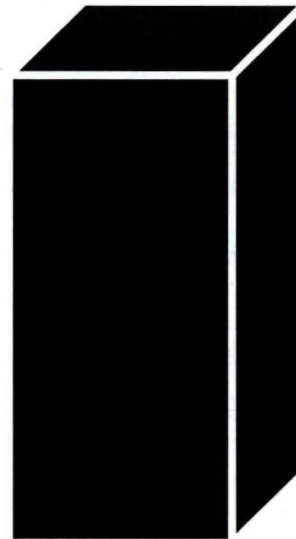




User Interface



**Human
Factors**



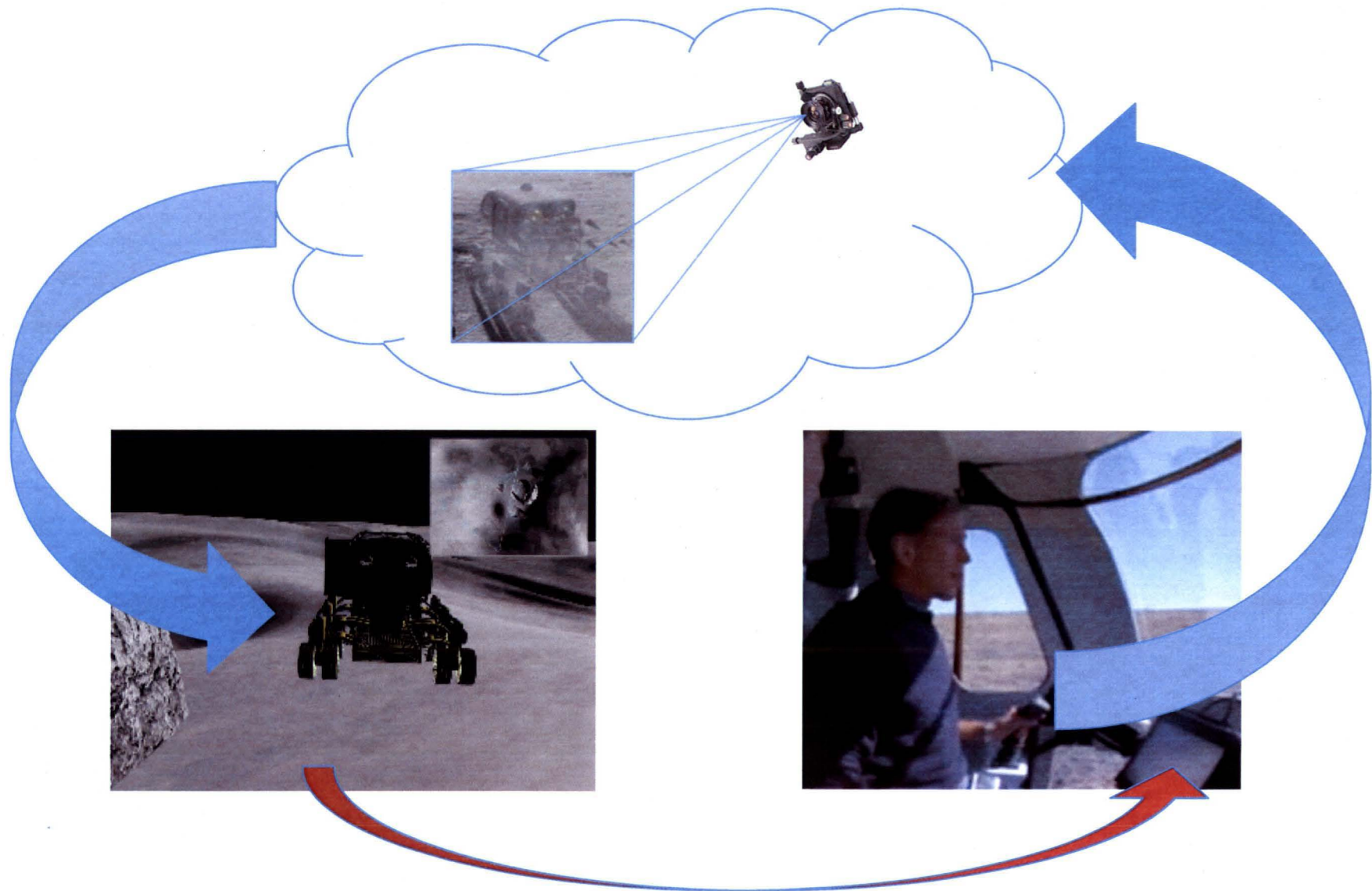
Ergonomics



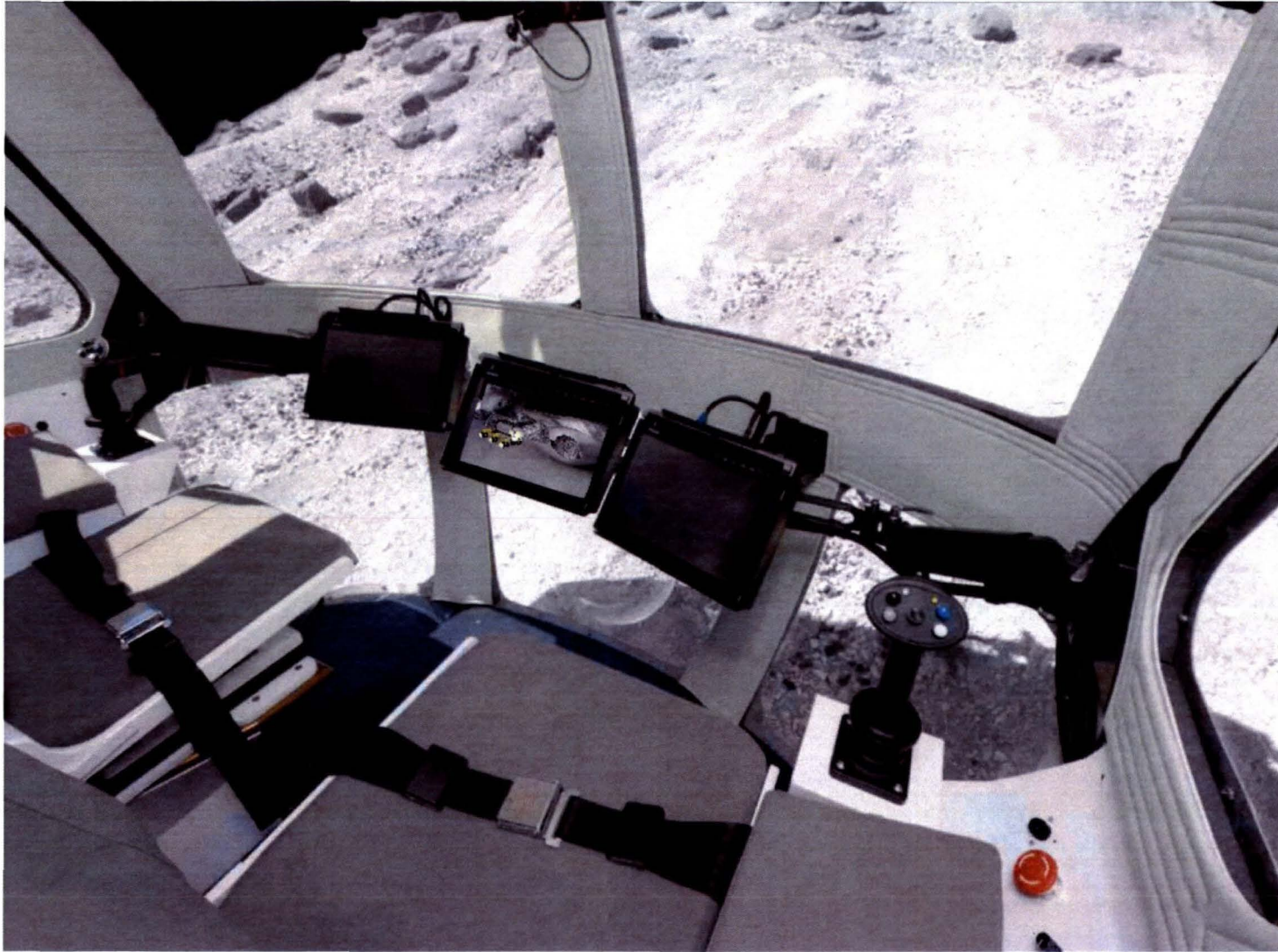
Engineering



The Virtual Camera



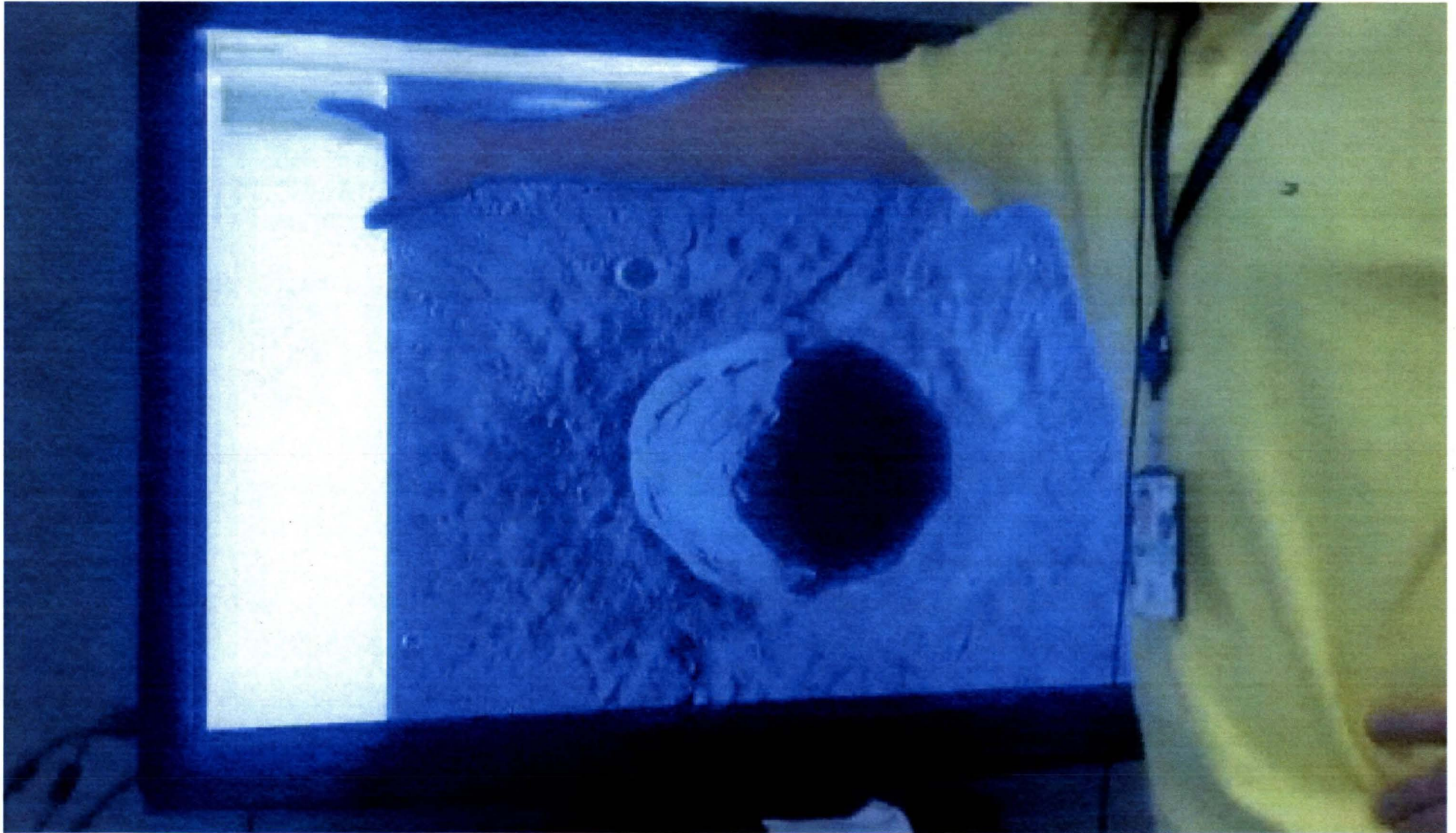
The Virtual Camera

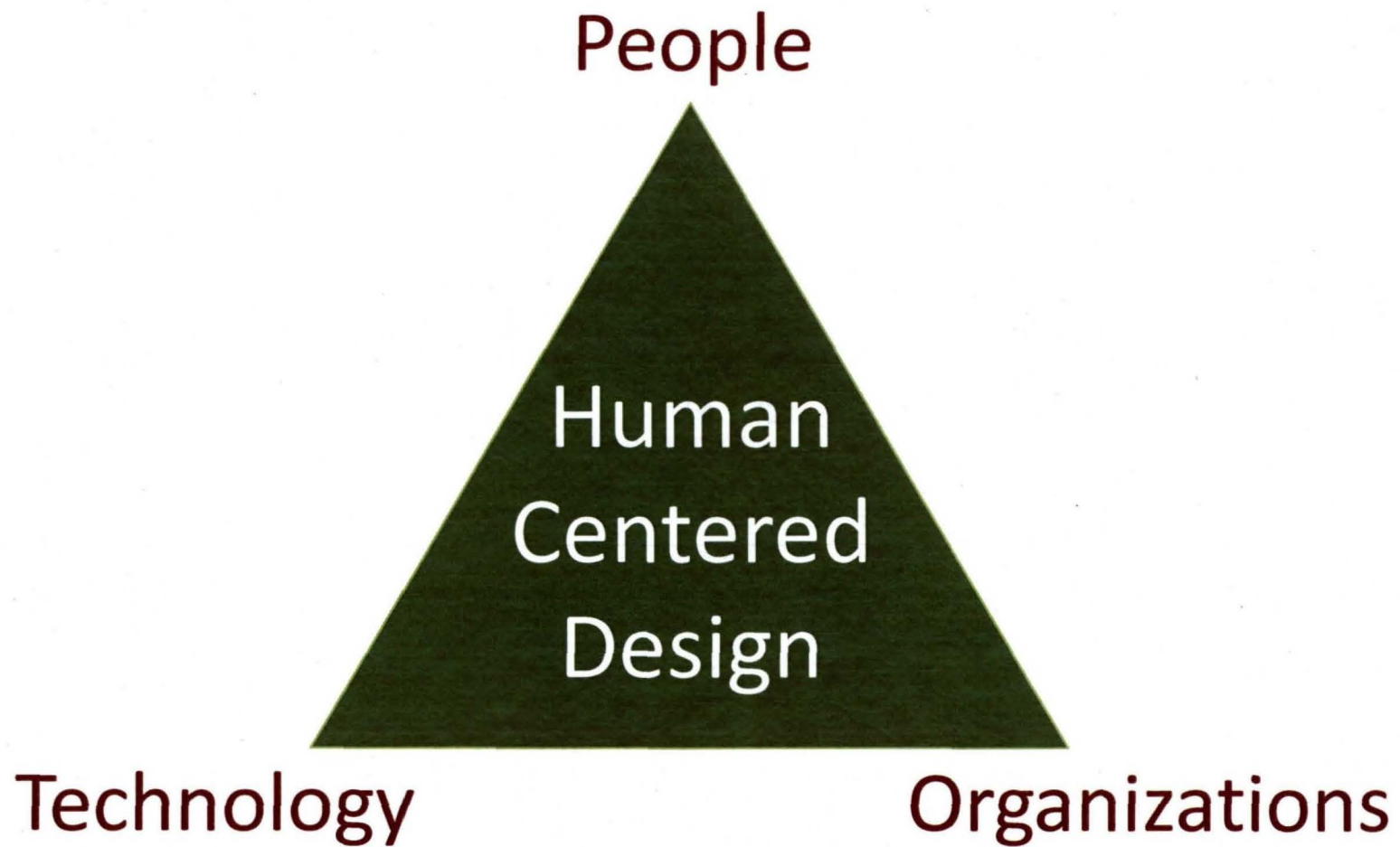


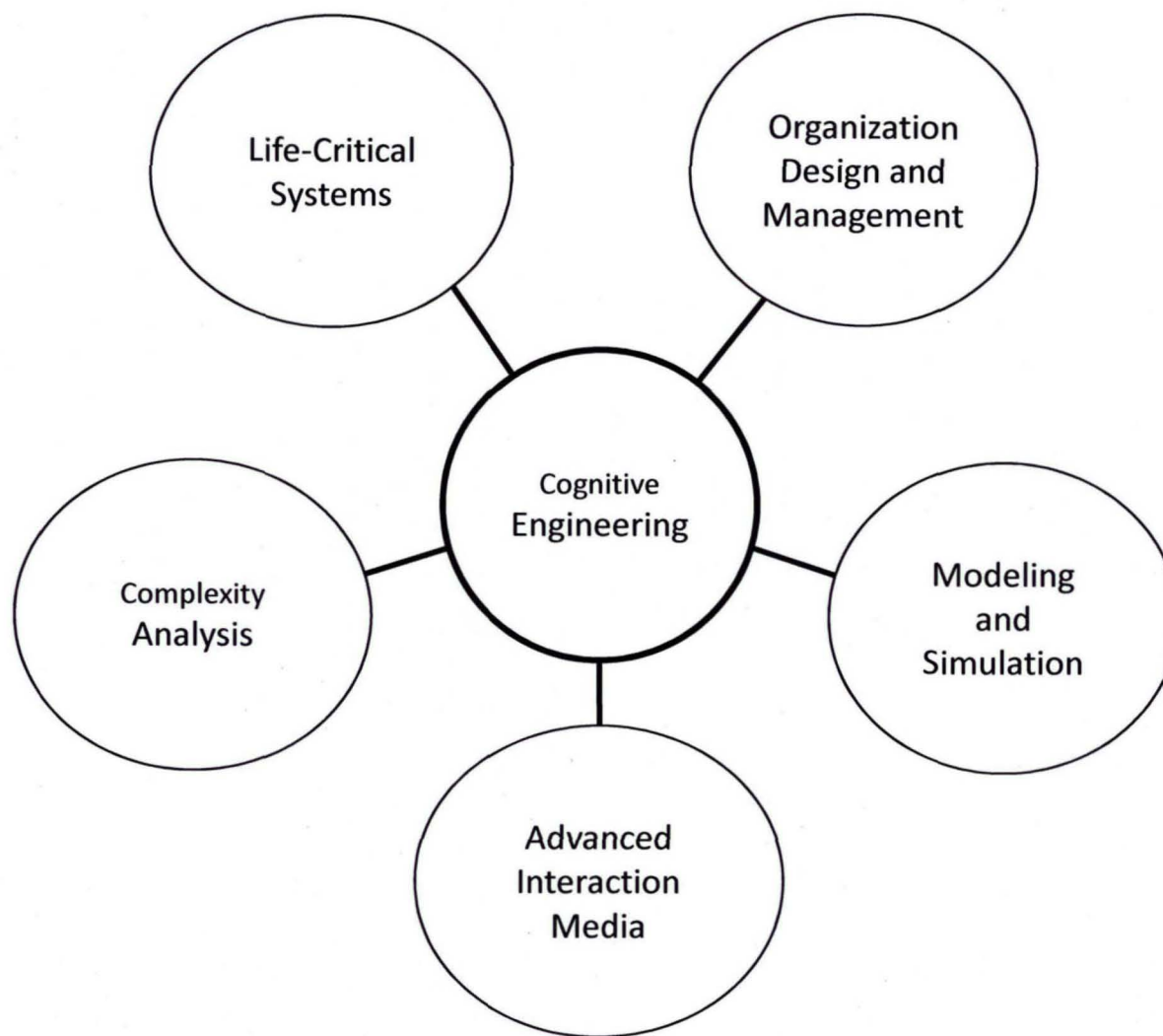
The Virtual Camera



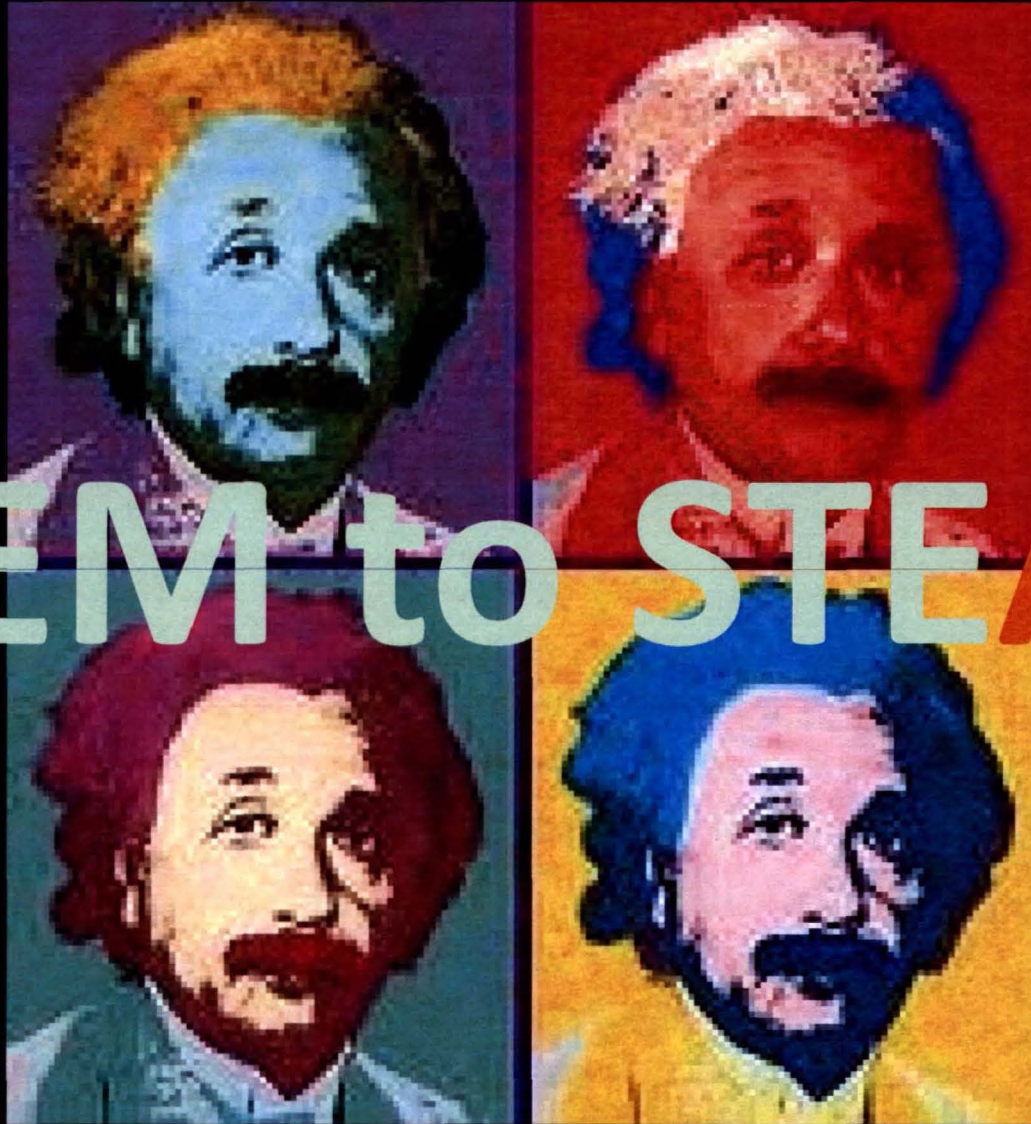
The Virtual Camera

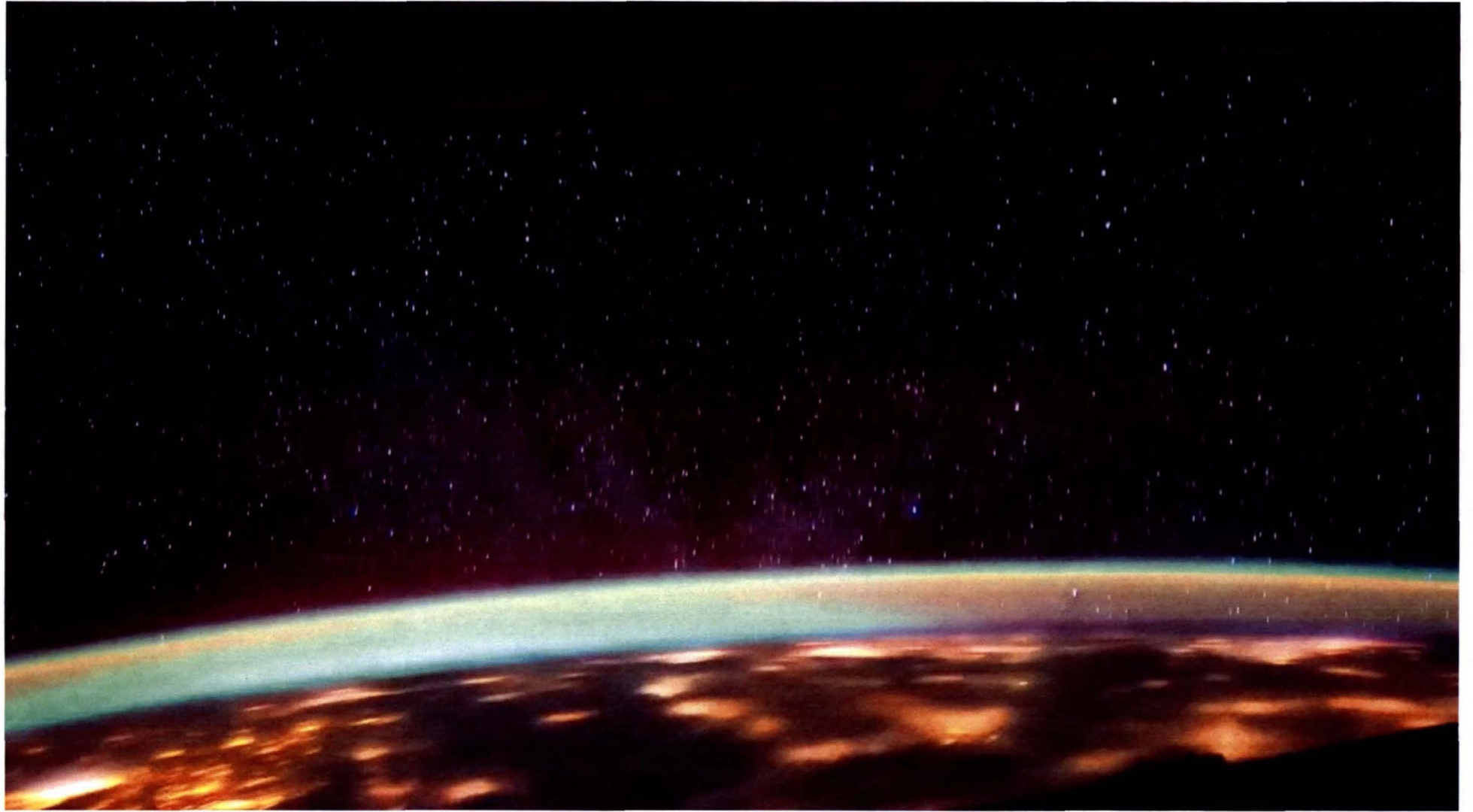




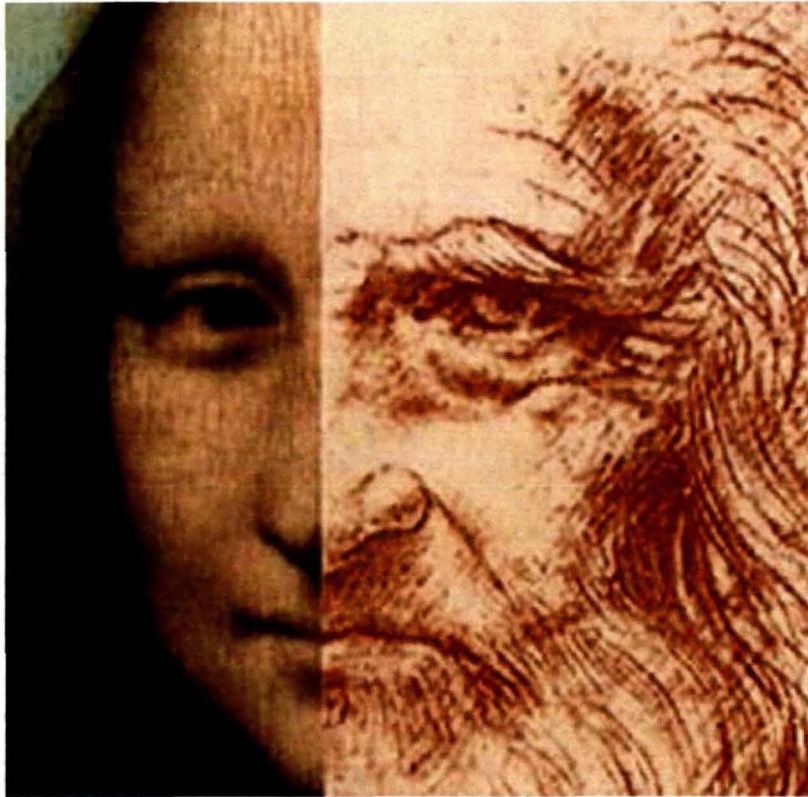


STEM to STEAM

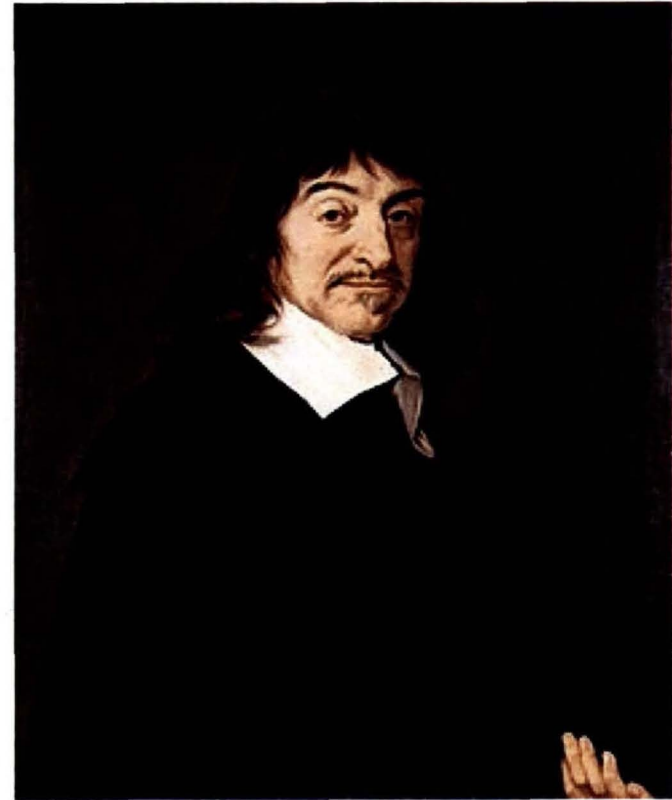




1452 –1519



1596 –1650



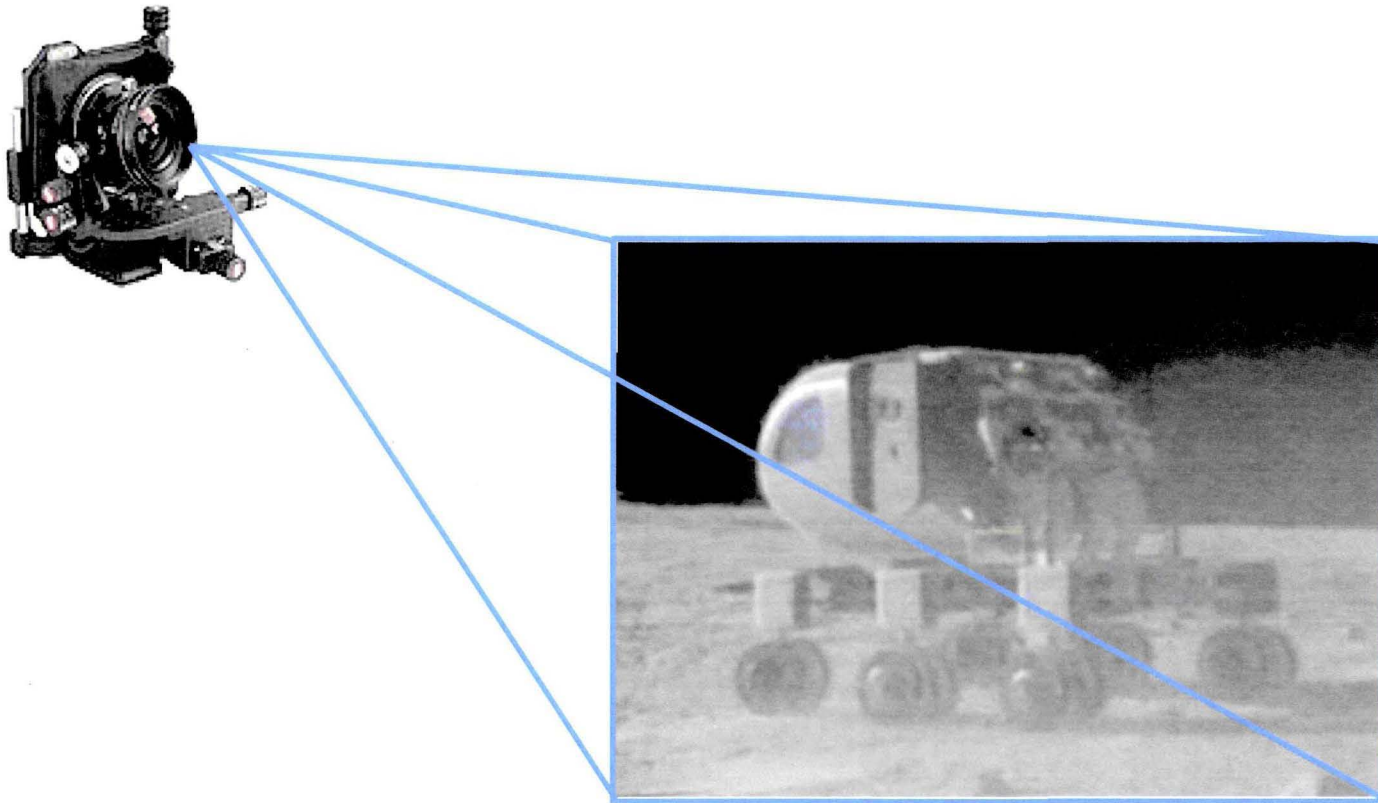
XXIth Century

XXth Century



Backup slides

The Virtual Camera





Maturity of Technology

Maturity of Practice

